Access 2002

Unit A

Getting Started with Access 2002

Objectives

- Define database software
- Learn database terminology
- Start Access and open a database
- MOUS View the database window
- MOUS Navigate records
- MOUS Enter records
- MOUS Edit records
- Preview and print a datasheet
- Get Help and exit Access

In this unit, you will learn the purpose, advantages, and terminology of Microsoft Access 2002, a database software program. You will learn how to use the different elements of the Access window and how to get help. You'll learn how to navigate through a database, enter and update data, and preview and print data. Kelsey Lang is a Marketing Manager at MediaLoft, a nationwide chain of bookstore cafés that sells books, music, and videos. Recently, MediaLoft switched to Access for storing and maintaining customer information. Kelsey will use Access to maintain this valuable information for MediaLoft.

Access 2002

Defining Database Software

Microsoft Access 2002 is a database software program that runs on Windows. **Database software** is used to manage data that can be organized into lists of related information, such as customers, products, vendors, employees, projects, or sales. Many small companies record customer, inventory, and sales information in a spreadsheet program such as Microsoft Excel. While this electronic format is more productive than using a paper-based system, Excel still lacks many of the database advantages provided by Access. Refer to Table A-1 for a comparison of the two programs. Kelsey reviews the advantages of database software over manual systems.

Details

The advantages of using Access include:

Data entry is faster and easier

Before inexpensive microcomputers, small businesses used manual paper systems, as illustrated in Figure A-1, such as index cards, to record each customer, sale, and inventory item. Using an electronic database such as Access, you can create on-screen data entry forms that make managing a database easier, more accurate, and more efficient than manual systems.

Information retrieval is faster and easier

Retrieving information in a manual system is tedious because the information has to be physically handled, sorted, and stored. Also, one error in filing can cause serious retrieval problems later. With Access you can quickly find, display, and print information about customers, sales, or inventory.

Information can be viewed and sorted in multiple ways

A manual system allows you to sort information in only one order, unless the information is duplicated for a second arrangement. In such a system, complete customer and product information is recorded for each sale. This can easily compromise data accuracy. Access allows you to view or sort the information from one or more subjects simultaneously. For example, you might want to find all the customers who purchased a particular product, or find all the products purchased by a particular customer. A change made to the data in one view of Access is automatically updated in every other view or report.

Information is more secure

Paper can be torn, misplaced, and stolen. There is no password required to read a paper document. A flood or fire can destroy the single copy of information in a manual system. If information is stored in an Access database file, you can back up an Access database file on a regular basis and store the file at an offsite location. You can also protect data with a password so only those users with appropriate security clearances can view or manipulate it.

Information can be shared among several users

An index card system is limited to those users who have physical access to it. If one user keeps a card for an extended period of time, then others cannot use or update that information. Access databases are inherently multiuser. More than one person can be entering, updating, and using the data at the same time.

Duplicate data entry is minimized

A paper-based system requires that you record the customer and product information for each sale twice—once on the customer index card and once on the inventory index card. With Access, you only need to enter each piece of information once. Figure A-2 shows a possible structure for an Access database that records sales.

FIGURE A-1: Using a manual system to organize sales data

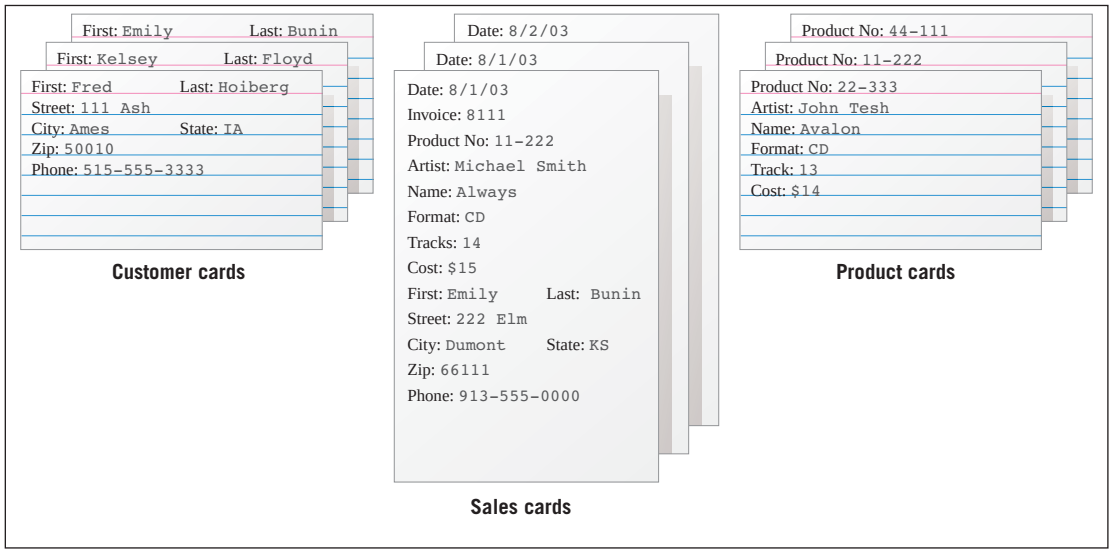


FIGURE A-2: Using Access, an electronic relational database, to organize sales data

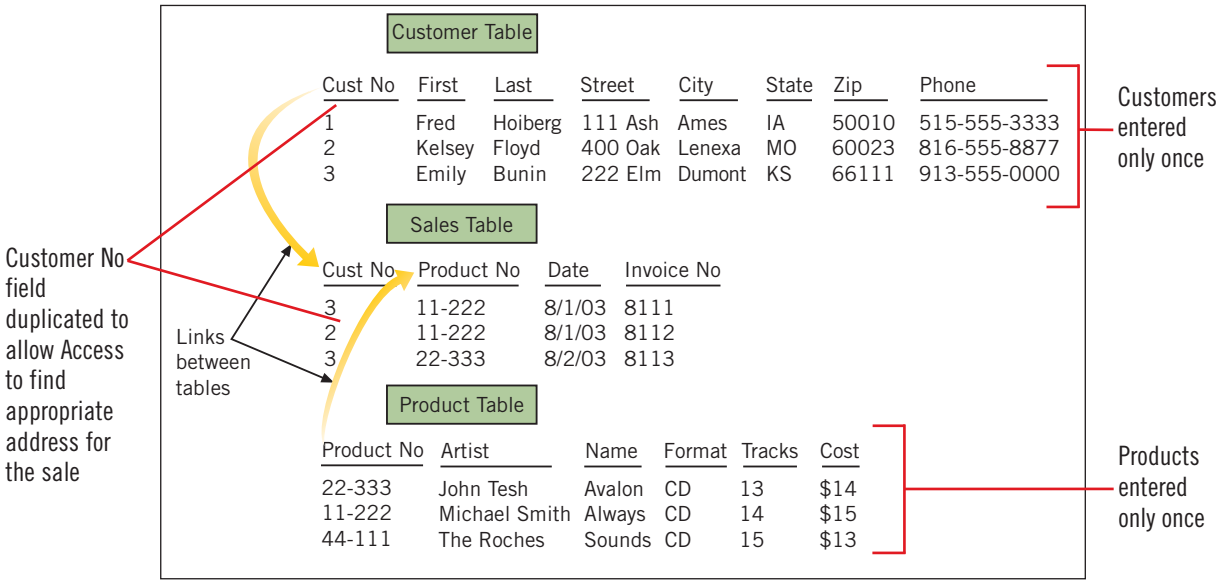


TABLE A-1: Comparing Excel to Access

feature	Excel	Access
Layout	Provides a natural tabular layout for easy data entry	Provides a natural tabular layout as well as customized data entry screens
Storage	Limited to approximately 65,000 records per sheet	Able to store any number of records up to two gigabytes
Linked tables	Manages single lists of information	Allows links between lists of information to reduce data redundancy
Reporting	Limited to the current spreadsheet arrangement of data	Able to create and save multiple report presentations of data
Security	Limited to file and password security options such as marking the file "read-only" or protecting a range of cells	Each user can be given access to only the records and fields they need
Multiuser capabilities	Does not easily allow multiple users to simultaneously enter and update data	Naturally allows multiple users to simultaneously enter and update data
Data entry screens	Provides limited data entry screens	Provides the ability to create extensive data entry screens called forms

Access 2002

Learning Database Terminology

To become familiar with Access, you need to understand basic database terminology. Kelsey reviews the terms and concepts that define a database.

Details

- A **database** is a collection of information associated with a topic (for example, sales of products to customers). The smallest piece of information in a database is called a **field**, or category of information, such as the customer's name, city, state, or phone number. A **key field** is a field that contains unique information for each record, such as a social security number for a person or a customer number for a customer. A group of related fields, such as all of the demographic information for one customer, is called a **record**. In Access, a collection of records for a single subject, such as all of the customer records, is called a **table**, as shown in Figure A-3.
- An Access database is a **relational database**, in which more than one table, such as the Customer, Sales, and Product tables, can share information. The term "relational database" comes from the fact that two tables are linked, or related, by a common field.
- Tables, therefore, are the most important **objects** in an Access database because they contain all of the data within the database. An Access database may also contain six other objects. These other objects serve to increase the usefulness and value of the relational data. The other objects in an Access database besides tables are **queries**, **forms**, **reports**, **pages**, **macros**, and **modules**. They are summarized in Table A-2.
- Data can be entered and edited in four of the objects: tables, queries, forms, and pages. The relationship between tables, queries, forms, and reports is shown in Figure A-4. Regardless of how the data is entered, it is physically stored in a table object. Data can be printed from a table, query, form, page, or report object. The macro and module objects provide additional database productivity and automation features. All of the objects (except for the page objects, which create Web pages) are stored in one database file.

TABLE A-2: Access objects and their purpose

object	purpose
Table	Contains all of the raw data within the database in a spreadsheet-like view; tables can be linked with a common field to share information and therefore minimize data redundancy
Query	Provides a spreadsheet-like view of the data similar to tables, but a query can be designed to provide the user with a subset of fields or records from one or more tables; queries are created when a user has a question about the data in the database
Form	Provides an easy-to-use data entry screen, which generally shows only one record at a time
Report	Provides a professional printout of data that may contain enhancements such as headers, footers, and calculations on groups of records
Page	Creates dynamic Web pages which interact with an Access database; also called Data Access Page
Macro	Stores a set of keystrokes or commands, such as the commands to print several reports or to display a toolbar when a form opens
Module	Stores Visual Basic for Applications programming code that extends the functions and automated processes of Access

FIGURE A-3: Tables contain fields and records

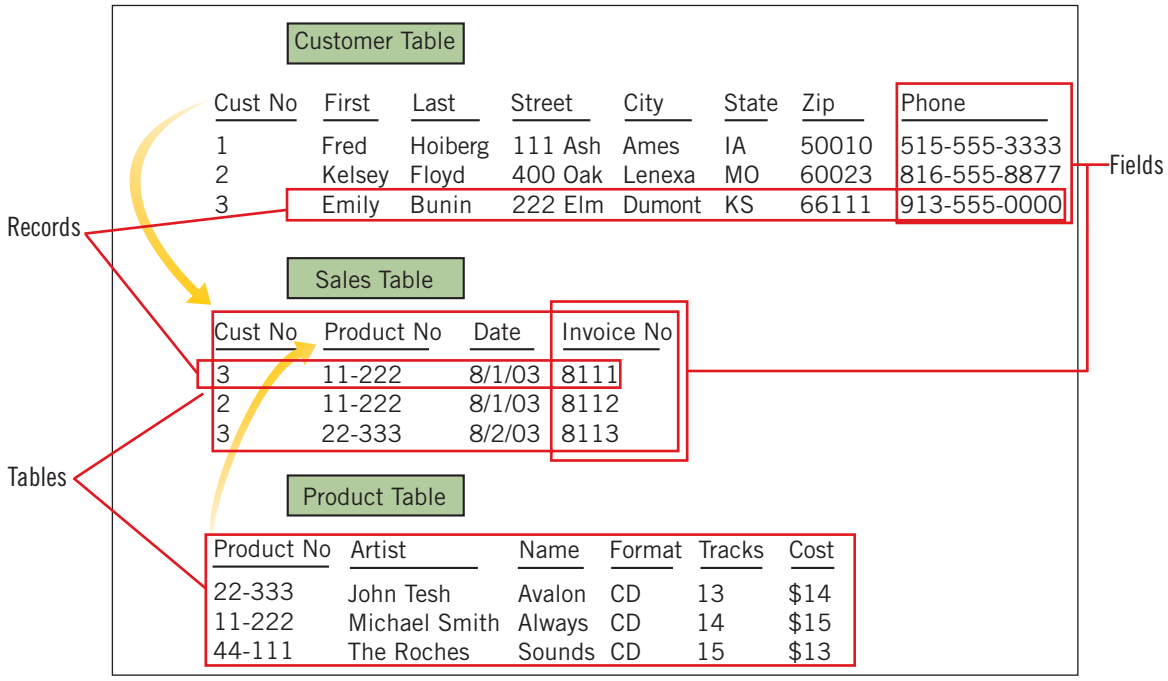
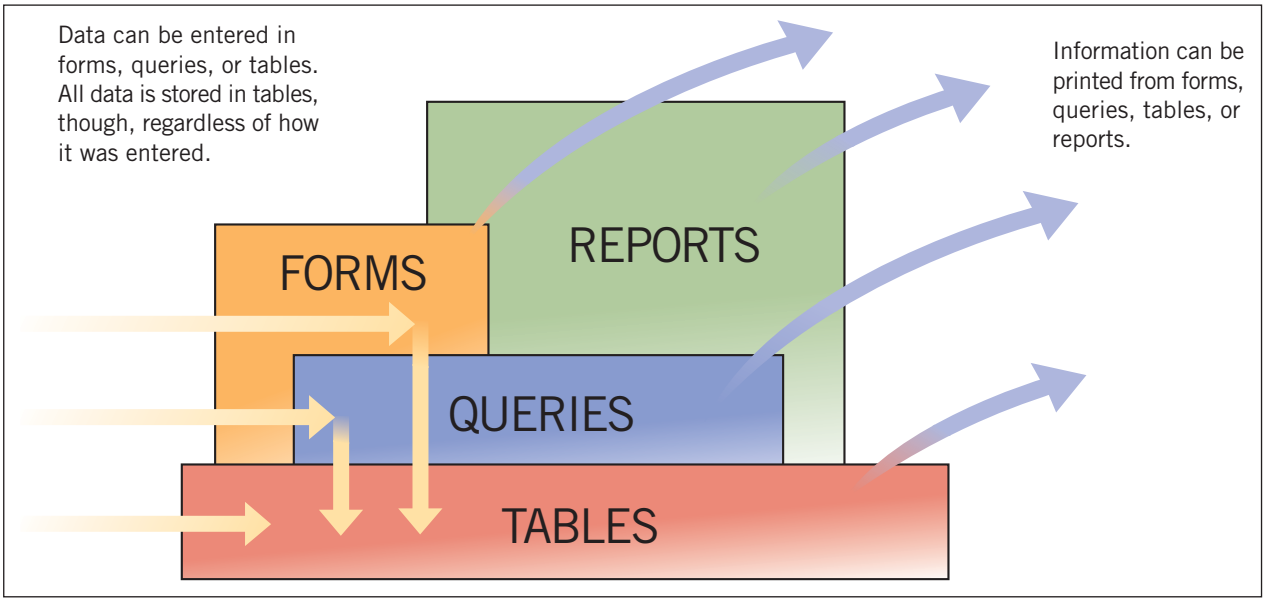


FIGURE A-4: The relationship between Access objects



Starting Access 2002 and Opening a Database

You can start Access by clicking the Access icon on the Windows desktop or on the Microsoft Office shortcut bar. Since not all computers will provide a shortcut icon on the desktop or display the Office shortcut bar, you can always find Access by clicking the Start button on the taskbar, pointing to Programs, and then choosing Access from the Programs menu. You can open a database from within Access or by finding the database file on the desktop, in My Computer, or in Windows Explorer, and then opening it. Kelsey starts Access and opens the MediaLoft-A database.

Steps 1 2 3 4

1. Click the **Start button** on the taskbar

   The Start button is the first item on the taskbar, and is usually located in the lower-left corner of your screen. You can use the Start menu to start any program on your computer.

2. Point to **Programs**

   Access is generally located on the Programs menu. All the programs stored on your computer can be found on the Programs menu.

Trouble?

If Microsoft Access is not located on the Programs menu, look for it within program group menus such as the Microsoft Office group.

3. Click **Microsoft Access**

   Access opens and displays a task pane on the right, from which you can open an existing file or create a new database.

Trouble?

If the task pane does not appear on the right side of your screen, click File on the menu bar, then click New.

4. Click the **Files** or **More files** link in the Open a file section of the task pane

   The Open dialog box opens, as shown in Figure A-5. Depending on the databases and folders stored on your computer, your dialog box may look slightly different.

5. Click the **Look in list arrow**, then navigate to the drive and folder where your Project Files are stored

   When you have navigated to the correct folder, a list of the Microsoft Access database files in that folder appears in the Open dialog box.

6. Click the **MediaLoft-A** database file, click **Open**, then click the **Maximize button** on the Microsoft Access title bar if the Access window is not already maximized

   The MediaLoft-A database opens as shown in Figure A-6.

FIGURE A-5: Open dialog box

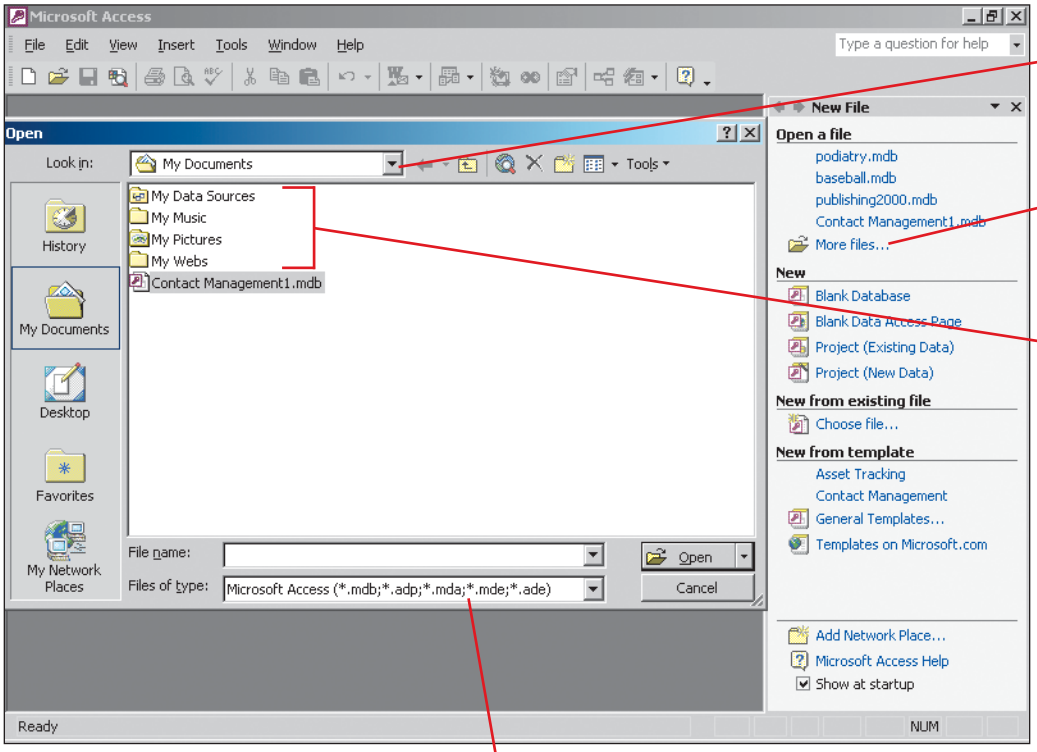
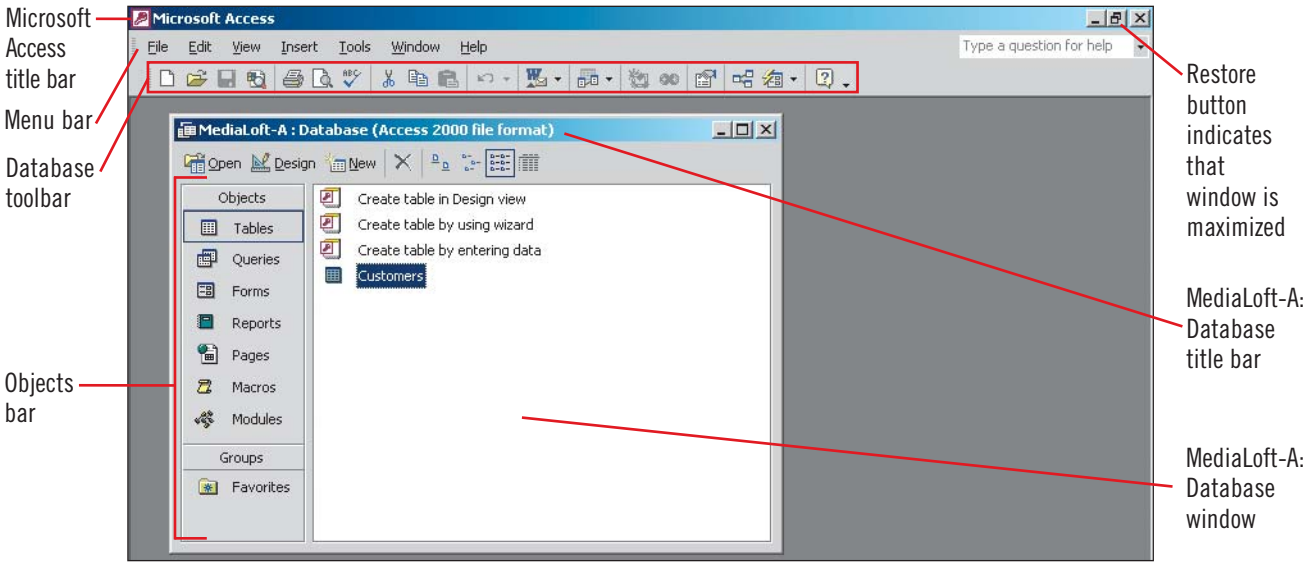


FIGURE A-6: MediaLoft-A database



CLUES TO USE

Personalized toolbars and menus in Access 2002

All of the applications within Office 2002 support **personalized toolbars** and **personalized menus** to some extent. "Personalized" means that the toolbars and menus modify themselves to reflect those features that you most commonly use. To view, modify, or reset the toolbar and menu options, click Tools on the menu bar, and then click Customize. On the Options tab you can reset the personalized usage data, eliminate the delay when displaying full menus, and change other toolbar button characteristics.

Unit A
Access 2002

Viewing the Database Window

When you start Access and open a database, the **database window** displays such common Windows elements as the title bar, menu bar, and toolbar. The **Objects bar** displays the buttons for the seven Access objects as well as the group buttons. The **Groups** area displays other commonly used files and folders, such as the Favorites folder. Clicking the **Objects button** or **Groups button** on the Objects bar alternatively expands and collapses that section. Kelsey explores the MediaLoft-A database.

Steps 1 2 3 4

1. **Look at each of the Access window elements shown in Figure A-7**
   The Objects bar on the left side of the database window displays the seven object types. The other elements of the database window are summarized in Table A-3. Because the Tables object is selected, the buttons you need to create a new table or to work with the existing table are displayed in the MediaLoft-A Database window.

2. **Click File on the menu bar**
   The File menu contains commands for opening a new or existing database, saving a database in a variety of formats, and printing. The menu commands vary depending on which window or database object is currently in use.

QuickTip
Double-click a menu option to quickly display the full menu.

3. **Point to Edit on the menu bar, point to View, point to Insert, point to Tools, point to Window, point to Help, move the pointer off the menu, then press [Esc] twice**
   All menus close when you press [Esc]. Pressing [Esc] a second time deselects the menu bar.

4. **Point to the New button on the Database toolbar**
   Pointing to a toolbar button causes a descriptive **ScreenTip** to automatically appear, providing a short description of the button. The buttons on the toolbars represent the most commonly used Access features. Toolbar buttons change just as menu options change depending on which window and database object are currently in use.

5. **Point to the Open button on the Database toolbar, then point to the Save button on the Database toolbar**
   Sometimes toolbar buttons or menu options are dimmed, which means they are not currently available. For example, the Paste button is dimmed because there is nothing on the Clipboard ready to be pasted.

6. **Click Queries on the Objects bar**
   The query object window provides ways to create a new query, and displays the names of previously created queries as shown in Figure A-8. There are three existing query objects displayed within the MediaLoft-A Database window.

7. **Click Forms on the Objects bar, then click Reports on the Objects bar**
   The MediaLoft-A database contains the Customers table, three queries, one form, and three reports.

CLUES TO USE

Viewing objects

You can change the way you view the objects in the database window by clicking the last four buttons on the database window toolbar. You can view the objects as Large Icons, Small Icons, in a List (default view), and with Details. The Details view shows a description of the object, as well as the date the object was last modified and the date it was originally created.

FIGURE A-7: MediaLoft-A database screen elements

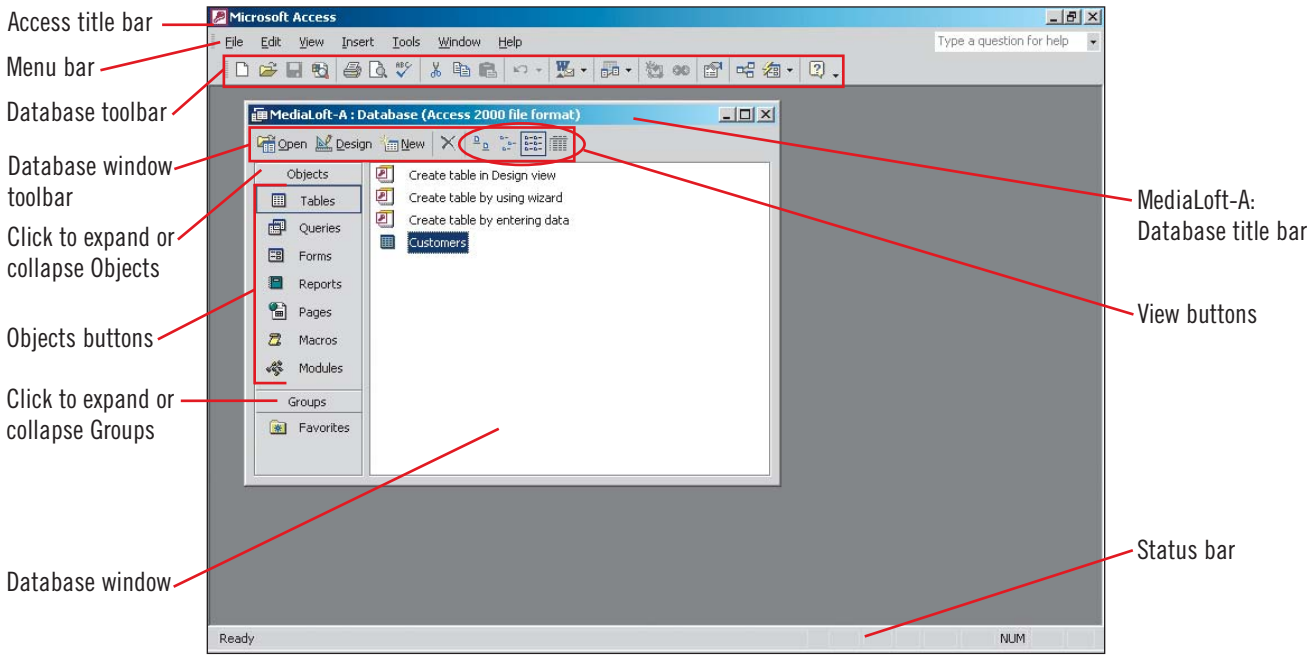


FIGURE A-8: MediaLoft-A query objects

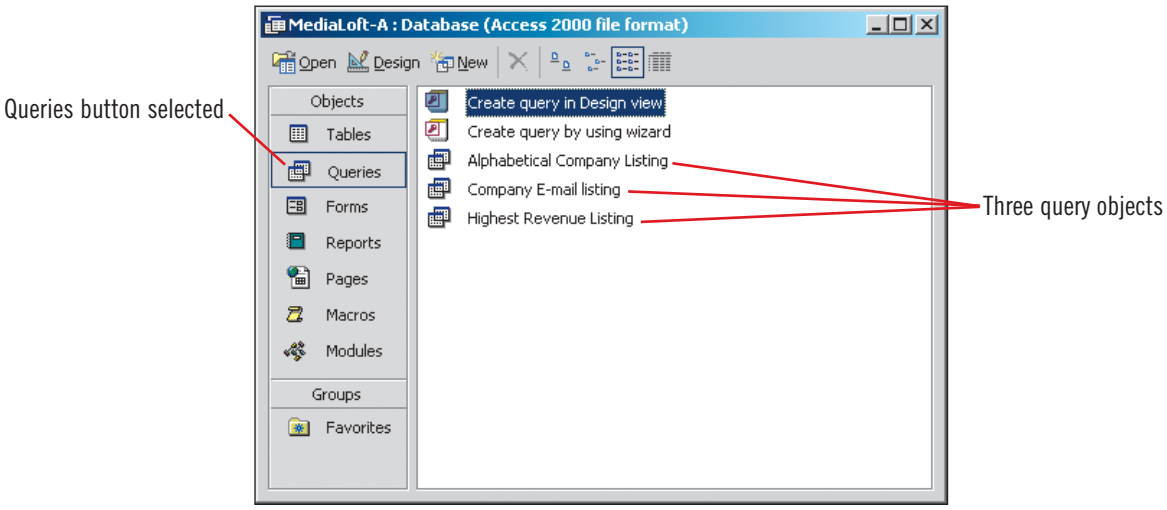


TABLE A-3: Elements of the database window

element	description
Database toolbar	Contains buttons for commonly performed tasks that affect the entire database (e.g., New, Open, or Relationships) or are common to all database objects (e.g., Print, Copy, or Spelling)
Database window	Allows you to work with the individual objects and groups stored within the database
Menu bar	Contains menus options appropriate for the current view of the database
Objects buttons	Objects buttons on the Objects bar display a list of each type of database object
Database window toolbar	Contains buttons used to open, modify, create, delete, or view objects
Status bar	Displays messages regarding the current database operation
Title bar	Contains the program name or filename of the active database

Navigating Records

Your ability to navigate the fields and records of a database is fundamental to your productivity and success with the database. You can navigate through the information in **Navigation mode** in the table's **datasheet**, a spreadsheet-like grid that displays fields as columns and records as rows. Kelsey opens the database and reviews the table containing information about MediaLoft's customers.

Steps 1 2 3 4

QuickTip

You can also double-click an object to open it.

1. Click **Tables** on the Objects bar, click **Customers**, then click the **Open button** on the MediaLoft-A Database window toolbar

   The datasheet for the Customers table opens, as shown in Figure A-9. The datasheet contains 27 customer records with 13 fields of information for each record. **Field names** are listed at the top of each column. The number of the selected record in the datasheet is displayed in the **Specific Record box** (also called the **record number box**) at the bottom of the datasheet window. Depending on the size of your monitor and your screen area settings, you may see a different number of fields. To view more fields, scroll to the right.

2. Press **[Tab]** to move to **Sprint**

   Sprint is selected in the first record. The Sprint entry is in the second field, named Company, of the first record.

3. Press **[Enter]**

   The focus moves to the Aaron entry in the third column, in the field named First. Pressing either [Tab] or [Enter] moves the focus to the next field. **Focus** refers to which field would be edited if you started typing.

4. Press [↓]

   The focus moves to the Jacob entry in the field named First of the second record. The **current record symbol** in the **record selector box** also identifies which record you are navigating. The Next Record and Previous Record **navigation buttons** in the lower-left corner of the datasheet can also be used to navigate the datasheet.

Trouble?

If [Ctrl][End] doesn't move the focus to the last field of the last record, you are probably working in Edit mode. Press [Tab] to return to Navigation mode, and then press [Ctrl][End].

5. Press **[Ctrl][End]**

   The focus moves to the $6,790.33 entry in the last field, named YTDSales, of the last record. You can also use the Last Record navigation button to move to the last record.

6. Press **[Ctrl][Home]**

   The focus moves to the 1 entry in the field named ID of the first record. You can also use the First Record navigation button to move to the first record. A complete listing of navigation keystrokes to move the focus between fields and records is shown in Table A-4.

CLUES TO USE

Changing to Edit mode

If you click a field with the mouse pointer instead of pressing [Tab] or [Enter] to navigate through the datasheet, you change from **Navigation mode** to Edit mode. In **Edit mode**, Access assumes that you are trying to make changes to that particular field value, so keystrokes such as [Ctrl][End], [Ctrl][Home], [→] and [←] move the insertion point *within* the field. To return to Navigation mode, press [Tab] or [Enter] (thus moving the focus to the next field), or press [↑] or [↓] (thus moving the focus to a different record).

FIGURE A-9: Customers datasheet

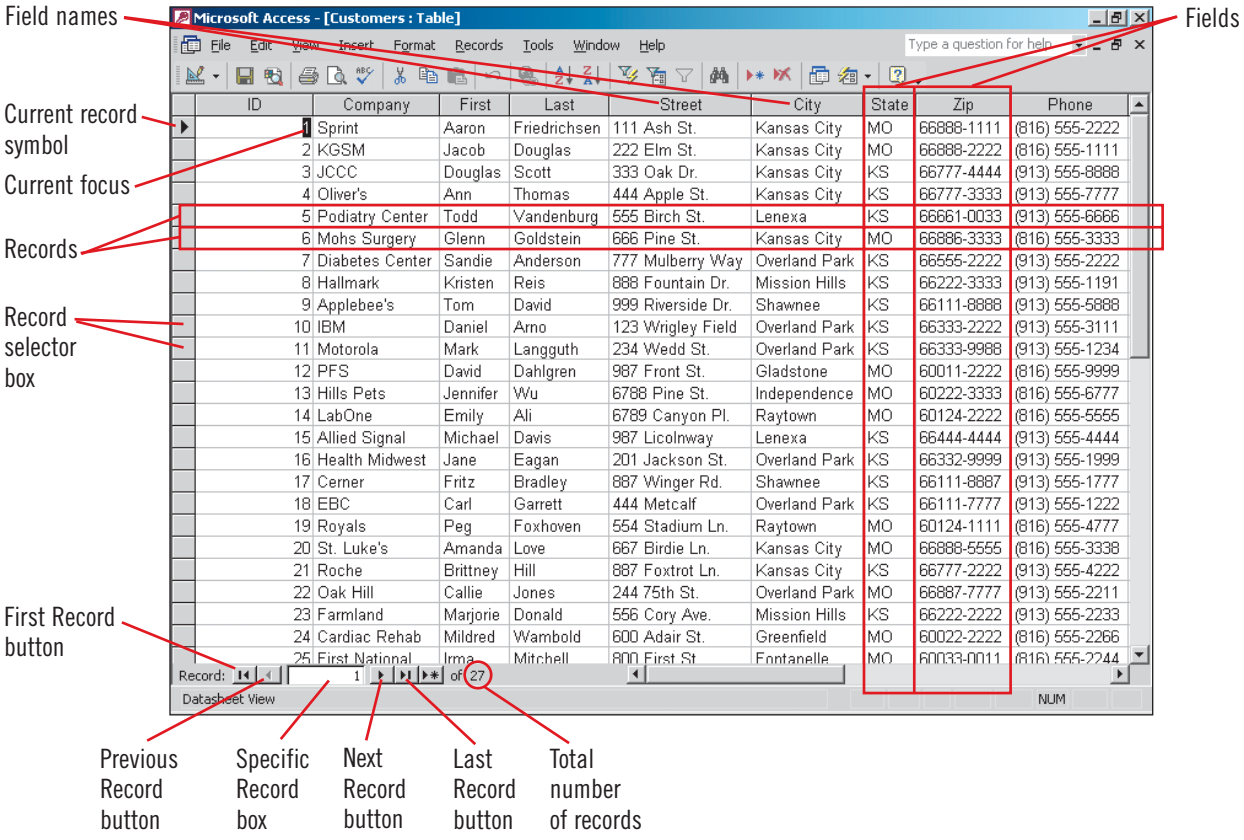


TABLE A-4: Navigation mode keyboard shortcuts

shortcut key	to move to the
[Tab], [Enter] or [→]	Next field of the current record
[Shift][Tab] or [←]	Previous field of the current record
[Home]	First field of the current record
[End]	Last field of the current record
[Ctrl][Home]	First field of the first record
[Ctrl][End]	Last field of the last record
[↑]	Current field of the previous record
[↓]	Current field of the next record
[Ctrl][↑]	Current field of the first record
[Ctrl][↓]	Current field of the last record
[F5]	Specific record entered in the Specific Record box

Entering Records

The ability to add records into a database is a critical task that is usually performed on a daily basis. You can add a new record by clicking the **New Record button** on the Table Datasheet toolbar or by clicking the New Record navigation button. A new record is always added at the end of the datasheet. You can rearrange the order of the records in a datasheet by sorting them, which you will learn later. Kelsey is ready to add two new records in the Customers table. First, she maximizes the datasheet window.

Steps

1. Click the **Maximize button** in the window title bar of the Customers Table datasheet

   Maximizing both the Access and datasheet windows displays the most information possible on the screen, and allows you to see more fields and records.

2. Click the **New Record button** on the Table Datasheet toolbar, then press **[Tab]** to move through the ID field and into the Company field

   The ID field is an **AutoNumber** field. Each time you add a record, Access automatically displays the next available integer in the AutoNumber field when you start entering data in that record. You cannot type into an AutoNumber field. The AutoNumber field logs how many records have been added to the datasheet since the creation of the table. It does not tell you how many records are currently in the table because Access will not reuse an AutoNumber value that was assigned to a record that has been deleted.

3. Type **CIO**, press **[Tab]**, type **Taylor**, press **[Tab]**, type **McKinsey**, press **[Tab]**, type **420 Locust St.**, press **[Tab]**, type **Lenexa**, press **[Tab]**, type **KS**, press **[Tab]**, type **66111-8899**, press **[Tab]**, type **9135551189**, press **[Tab]**, type **9135551889**, press **[Tab]**, type **9/6/69**, press **[Tab]**, type **taylor@cio.com**, press **[Tab]**, type **5433.22**, then press **[Enter]**

   The value of 28 was automatically entered in the ID field for this record. Notice that the Navigation buttons indicate that you are now working on record 29 of 29.

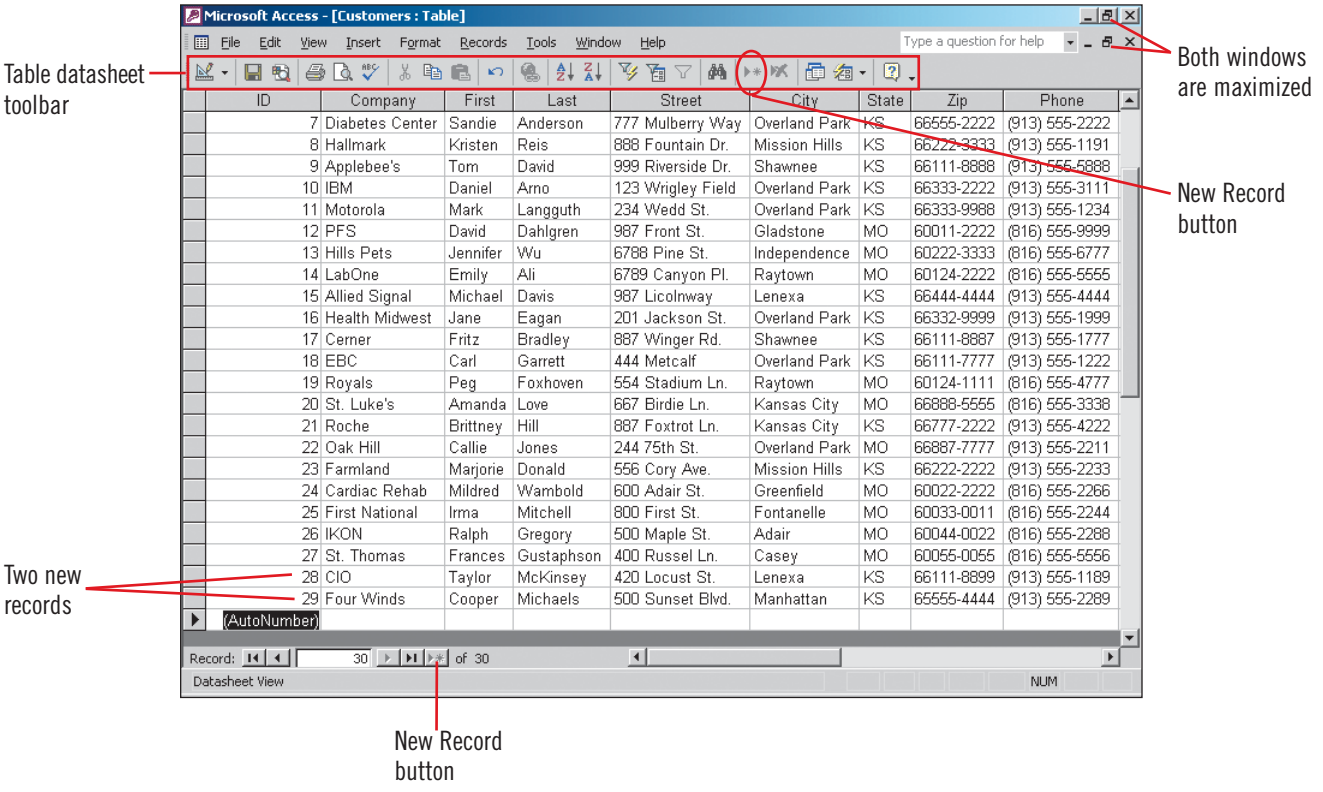
4. Enter the new record for Cooper Michaels shown below

in field:	type:	in field:	type:
ID	[Tab]	Zip	65555-4444
Company	Four Winds	Phone	913-555-2289
First	Cooper	Fax	913-555-2889
Last	Michaels	Birthdate	8/20/68
Street	500 Sunset Blvd.	Email	coop@4winds.com
City	Manhattan	YTDSales	5998.33
State	KS		

5. Press **[Tab]**, then compare your updated datasheet with Figure A-10

   You should have 29 records. You can confirm that you have 29 records by using the navigation buttons.

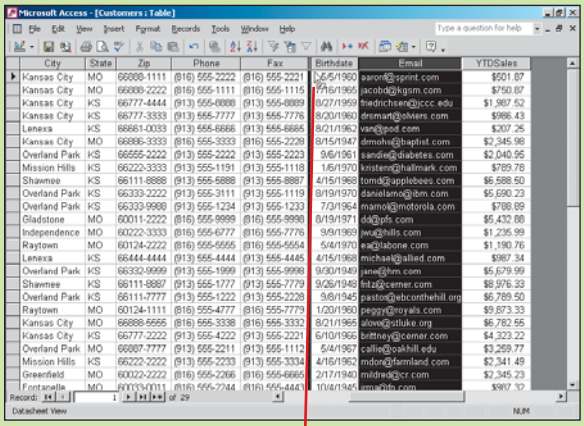
FIGURE A-10: Customers table with two new records



Moving datasheet columns

You can reorganize the fields in a datasheet by dragging the field name left or right. Figure A-11 shows how the mouse pointer changes to as the Email field is moved to the left. The black vertical line between the Fax and Birthdate fields represents the new location for the field you are moving. Release the mouse button when you have appropriately positioned the field.

FIGURE A-11: Moving a field



Editing Records

Updating existing information is another important daily task. To change the contents of an existing record, click the field you want to change, then type the new information. You can delete unwanted data by clicking the field and using the [Backspace] or [Delete] keys to delete text to the left or right of the insertion point. Other data entry keystrokes are summarized in Table A-5.

Kelsey needs to make some corrections to the datasheet of the Customers table. She starts by correcting an error in the Street field of the first record.

Steps 1 2 3 4

1. Press **[Ctrl][Home]** to move to the first record, click to the right of **111 Ash St.** in the Street field, press **[Backspace]** three times to delete **St.**, then type **Dr.**
   When you are editing a record, the **edit record symbol**, which looks like a small pencil, appears in the record selector box to the left of the current record, as shown in Figure A-12.

2. Click to the right of **Hallmark** in the Company field in record 8, press **[Spacebar]**, type **Cards**, then press [↓] to move to the next record
   You do not need to explicitly save new records or changes to existing records because Access saves the new data as soon as you move to another record or close the datasheet.

3. Click **Shawnee** in the City field for record 17, then press **[Ctrl]['']**
   The entry changes from "Shawnee" to "Overland Park." Pressing [Ctrl]['] inserts the data from the same field in the previous record.

4. Click to the left of **EBC** in the Company field for record 18, press **[Delete]** to remove the **E**, press **[Tab]** to move to the next field, then type **Doug**
   "EBC" becomes "BC" in the Company field, and "Doug" replaces "Carl" in the First field. Notice the edit record symbol in the record selector box to the left of record 18. Since you are still editing this record, you can undo the changes using the [Esc] key.

5. Press **[Esc]**
   The Doug entry changes back to Carl. Pressing [Esc] once removes the current field's editing changes.

6. Press **[Esc]** again
   Pressing [Esc] a second time removes all changes made to the record you are currently editing. The Company entry is restored to EBC. The ability to use [Esc] in Edit mode to remove data entry changes is dependent on whether or not you are still editing the record (as evidenced by the edit record symbol to the left of the record). Once you move to another record, the changes are saved, and you return to Navigation mode. In Navigation mode you can no longer use [Esc] to remove editing changes, but you can click the **Undo button** on the Table Database toolbar to undo the last change you made.

7. Press [↓] to move to **Peg** in the First field of record 19, type **Peggy**, then press [↓] to move to record 20
   Since you are no longer editing record 19, [Esc] has no effect on the last change.

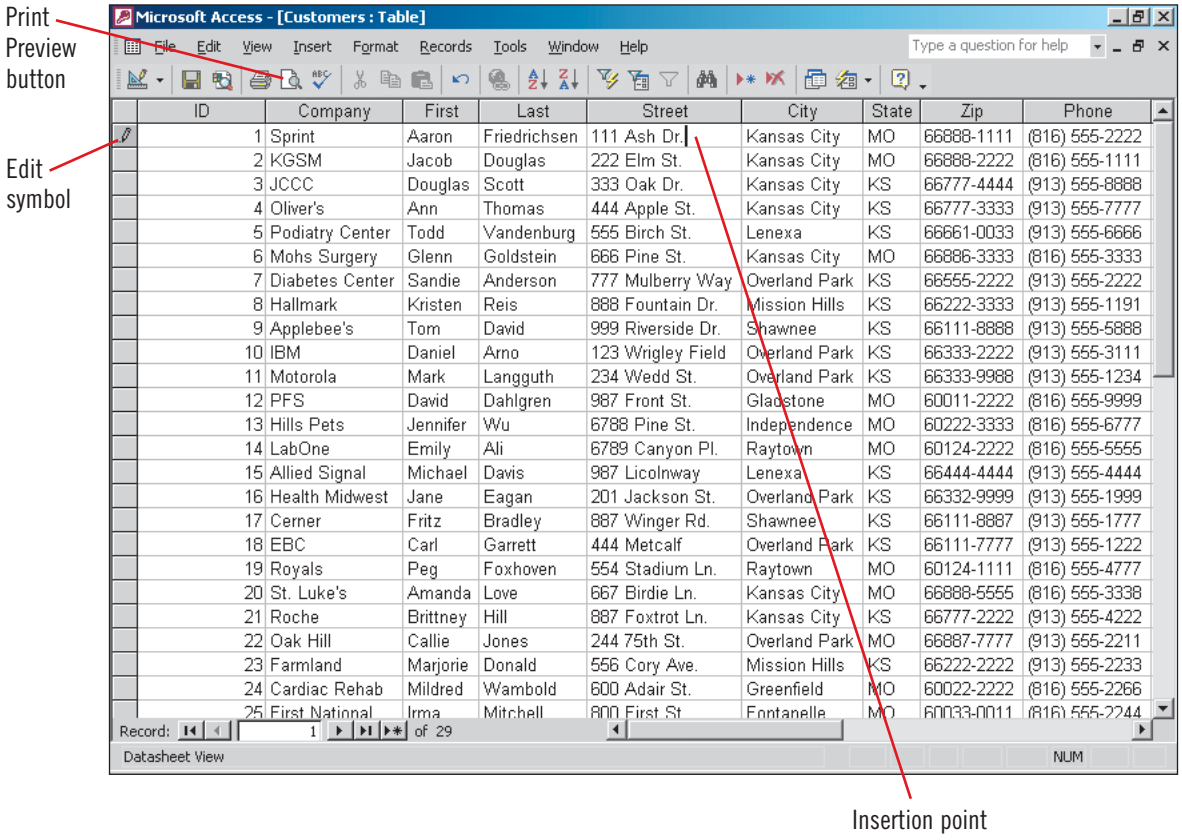
QuickTip

The ScreenTip for the Undo button displays the action you can undo.

8. Click the **Undo button** on the Table Datasheet toolbar
   You undo the last edit and Peggy is changed back to Peg. Some areas of Access allow you to undo multiple actions, but a datasheet allows you to undo only your last action.

9. Click anywhere in the **Allied Signal (ID 15)** record, click the **Delete Record button** on the Table Datasheet toolbar, then click **Yes**
   The message warns that you cannot undo a record deletion operation. Notice that the Undo button is dimmed, indicating that it cannot be used at this time.

FIGURE A-12: Editing records



ID	Company	First	Last	Street	City	State	Zip	Phone
1	Sprint	Aaron	Friedrichsen	111 Ash Dr.	Kansas City	MO	66888-1111	(816) 555-2222
2	KGSM	Jacob	Douglas	222 Elm St.	Kansas City	MO	66888-2222	(816) 555-1111
3	JCCC	Douglas	Scott	333 Oak Dr.	Kansas City	KS	66777-4444	(913) 555-8888
4	Oliver's	Ann	Thomas	444 Apple St.	Kansas City	KS	66777-3333	(913) 555-7777
5	Podiatry Center	Todd	Vandenburg	555 Birch St.	Lenexa	KS	66861-0033	(913) 555-6666
6	Mohs Surgery	Glenn	Goldstein	666 Pine St.	Kansas City	MO	66886-3333	(816) 555-3333
7	Diabetes Center	Sandie	Anderson	777 Mulberry Way	Overland Park	KS	66555-2222	(913) 555-2222
8	Hallmark	Kristen	Reis	888 Fountain Dr.	Mission Hills	KS	66222-3333	(913) 555-1191
9	Applebee's	Tom	David	999 Riverside Dr.	Shawnee	KS	66111-8888	(913) 555-5888
10	IBM	Daniel	Arno	123 Wrigley Field	Overland Park	KS	66333-2222	(913) 555-3111
11	Motorola	Mark	Langguth	234 Wedd St.	Overland Park	KS	66333-9988	(913) 555-1234
12	PFS	David	Dahlgren	987 Front St.	Gladstone	MO	60011-2222	(816) 555-9999
13	Hills Pets	Jennifer	Wu	6788 Pine St.	Independence	MO	60222-3333	(816) 555-6777
14	LabOne	Emily	Ali	6789 Canyon Pl.	Raytown	MO	60124-2222	(816) 555-5555
15	Allied Signal	Michael	Davis	987 Licolnway	Lenexa	KS	66444-4444	(913) 555-4444
16	Health Midwest	Jane	Eagan	201 Jackson St.	Overland Park	KS	66332-9999	(913) 555-1999
17	Cerner	Fritz	Bradley	887 Winger Rd.	Shawnee	KS	66111-8887	(913) 555-1777
18	EBC	Carl	Garrett	444 Metcalf	Overland Park	KS	66111-7777	(913) 555-1222
19	Royals	Peg	Foxhoven	554 Stadium Ln.	Raytown	MO	60124-1111	(816) 555-4777
20	St. Luke's	Amanda	Love	667 Birdie Ln.	Kansas City	MO	66888-5555	(816) 555-3338
21	Roche	Brittney	Hill	887 Foxtrot Ln.	Kansas City	KS	66777-2222	(913) 555-4222
22	Oak Hill	Callie	Jones	244 75th St.	Overland Park	MO	66887-7777	(913) 555-2211
23	Farmland	Marjorie	Donald	556 Cory Ave.	Mission Hills	KS	66222-2222	(913) 555-2233
24	Cardiac Rehab	Mildred	Wambold	600 Adair St.	Greenfield	MO	60022-2222	(816) 555-2266
25	First National	Irma	Mitchell	800 First St	Fontanelle	MO	60033-0011	(816) 555-2244

TABLE A-5: Edit mode keyboard shortcuts

editing keystroke	action
[Backspace]	Deletes one character to the left of the insertion point
[Delete]	Deletes one character to the right of the insertion point
[F2]	Switches between Edit and Navigation mode
[Esc]	Undoes the change to the current field
[Esc][Esc]	Undoes all changes to the current record
[F7]	Starts the spell check feature
[Ctrl][']	Inserts the value from the same field in the previous record into the current field
[Ctrl][;]	Inserts the current date in a Date field

Resizing datasheet columns

You can resize the width of a field in a datasheet by dragging the thin black line that separates the field names to the left or right. The mouse pointer changes to ✣ as you make the field wider or narrower.

Release the mouse button when you have resized the field. To adjust the column width to accommodate the widest entry in the field, double-click the thin black line that separates the field names.

Previewing and Printing a Datasheet

After entering and editing the records in a table, you can print the datasheet to obtain a hard copy of it. Before printing the datasheet, you should preview it to see how it will look when printed. Often you will want to make adjustments to margins and page orientation. Kelsey is ready to preview and print the datasheet.

Steps 1 2 3 4

QuickTip

If you want your name to appear on the printout, enter it as a new record in the datasheet before printing.

1. Click the **Print Preview button** on the Table Database toolbar
   The datasheet appears as a miniature page in the Print Preview window, as shown in Figure A-14. The Print Preview toolbar provides options for printing, viewing more than one page, and sending the information to Word or Excel.
2. Click the pointer on the top of the datasheet
   By magnifying this view of the datasheet, you can see Customers, the name of the table, in the center of the header. Today's date is positioned in the right section of the header.
3. Scroll down to view the bottom of the page
   The word "Page" and the current page number are positioned in the center of the footer.
4. Click the **Two Pages button** on the Print Preview toolbar
   The navigation buttons in the lower-left corner are dimmed, indicating that the entire printout fits on two pages. To make further changes, use the Page Setup dialog box.
5. Click **File** on the menu bar, then click **Page Setup**
   The Page Setup dialog box opens, as shown in Figure A-15. This dialog box provides options for changing margins, removing the headings (the header and footer), and changing page orientation from portrait (default) to landscape by using the Page tab.
6. Double-click **1** in the Top text box, type **2**, then click **OK**
   The modified datasheet appears in the Print Preview window.
7. Click the **Print button** on the Print Preview toolbar, then click the **Close button** Close
   The datasheet appears on the screen.

Clues to Use: Hiding fields

Sometimes you may not want all the fields of a datasheet to appear on the printout. To temporarily hide a field, click anywhere in the field, click Format on the menu bar, and then click Hide Columns. To redisplay the column, click Format, then click Unhide Columns. The Unhide Columns dialog box, shown in Figure A-13, opens. The unchecked boxes indicate which columns are currently hidden.

FIGURE A-13: Unhide Columns dialog box

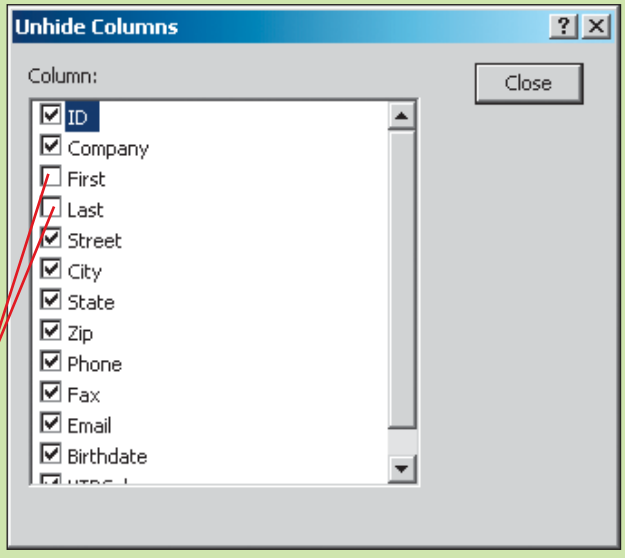


FIGURE A-14: Datasheet in print preview (portrait orientation)

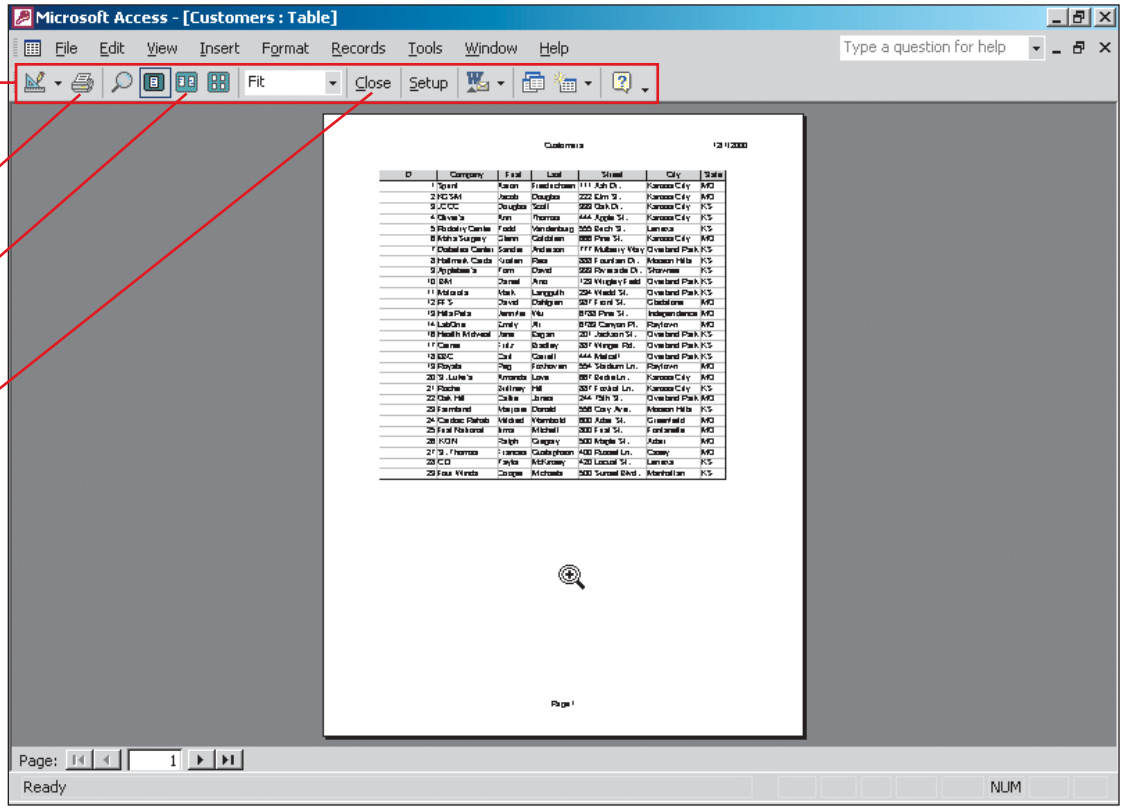
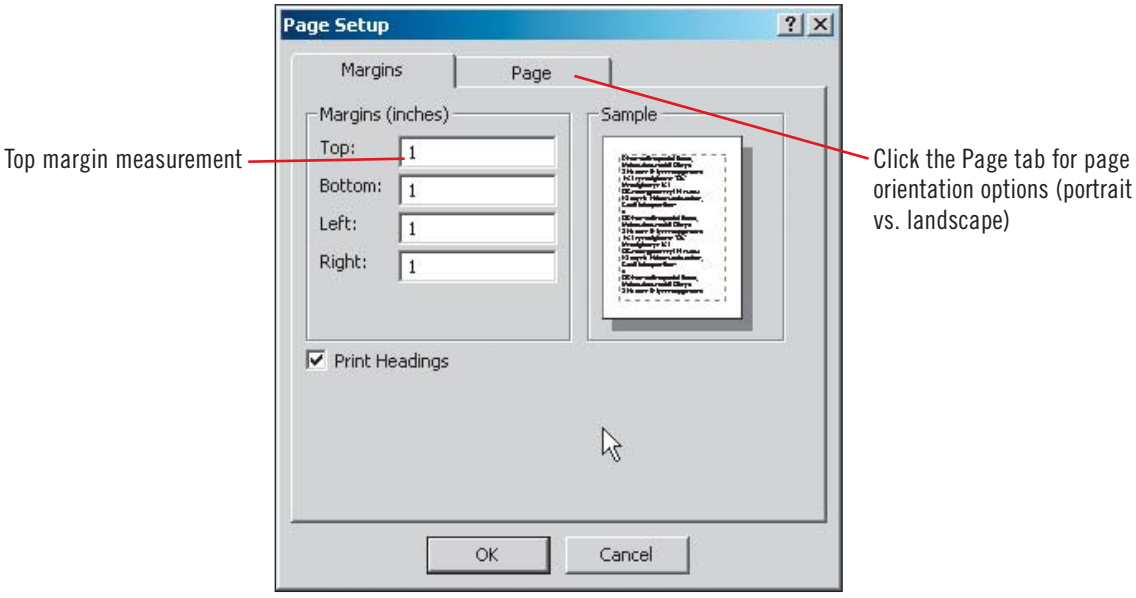


FIGURE A-15: Page Setup dialog box



Getting Help and Exiting Access

When you have finished working in your database, you need to close the object you were working in, such as a table datasheet, and then close the database. To close a table, click File on the menu bar and then click Close, or click the object's Close button located in the upper-right corner of the menu bar. Once you have closed all open objects, you can exit the program. As with most programs, if you try to exit Access and have not yet saved changes to open objects, Access will prompt you to save your changes. You can use the Help system to learn more about the program. Kelsey has finished working with Access for now, so she closes the Customers table and MediaLoft-A database. Before exiting, she learns more about the Help system, and then exits Access.

Steps

1. Click the **Close button** for the Customers datasheet
   If you make any structural changes to the datasheet such as moving, resizing, or hiding columns, you are prompted to save those changes. The MediaLoft-A database window is now active.
2. Click the **Close button** for the MediaLoft-A Database, as shown in Figure A-16
   The MediaLoft-A database is closed, but Access is still running, so you could open another database or explore the Help system to learn more about Access.
3. Click the **Ask a question box**, type **naming fields**, then press [**Enter**]
   A list of potential Help topics that relate to your entry appears. Using the Help text box is similar to initiating keyword searches via the Office Assistant or using the Answer Wizard. Help menu options and terminology are further explained in Table A-6.
4. Click **About renaming a field in a table**
   The Help manual opens to the specific page that explains how to rename an existing field in a table. **Glossary terms** are shown as blue hyperlinks. Clicking a blue hyperlink displays a definition for that word in green text.

Trouble?

If you do not see the Contents, Answer Wizard, and Index tabs to the left of the Help window, click the Show Help button on the Help toolbar.

5. Click the **Show All** link in the upper-right corner of the Microsoft Access Help window
   An expanded view of the Help page with all subcategories and definitions appears as shown in Figure A-17. The Show All link now becomes the Hide All link.
6. Click the **Contents tab**, double-click **Microsoft Access Help**, double-click **Working with Data**, double-click **Adding, Editing, or Deleting Data**, click **Delete a record**, then click the **Show All** link in the upper-right corner of the Microsoft Access Help window
   Searching for information by using the Contents tab is similar to locating information by starting with a broad Table of Contents, then continuing to narrow the subject matter into smaller areas.
7. Click the **Close button** for the Microsoft Access Help window
   Whether you prefer to browse the Help manual by typing key words into the Ask a question box, drilling down through the Contents, interacting with the Office Assistant, or through some other method, it is important to realize that you're using the same Help system, but accessing it in different ways.

QuickTip

If your Project Files are stored on a floppy disk, do not remove your floppy disk from drive A until you have completely exited Access.

8. Click **File** on the menu bar, then click **Exit**

FIGURE A-16: Closing a database

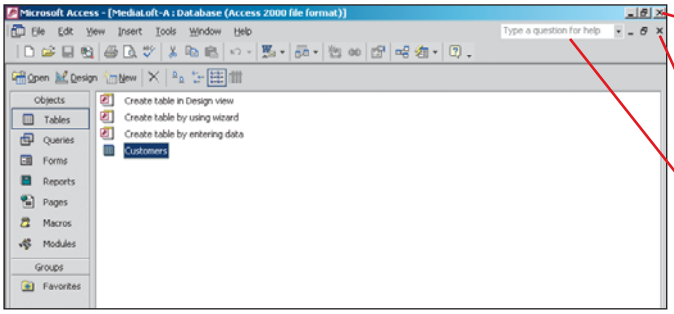


FIGURE A-17: Microsoft Access Help window

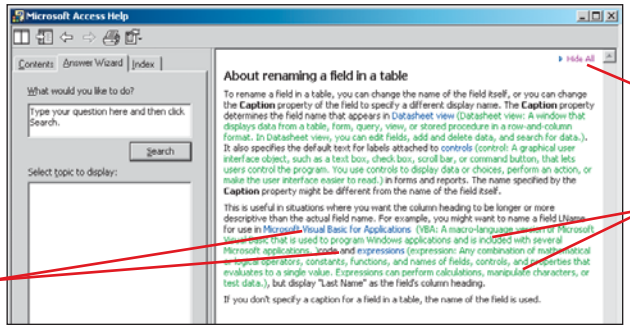


TABLE A-6: Help menu options

Help menu option	description
Microsoft Access Help	Opens the Office Assistant which prompts you for a keyword search of the Help manual
Show the Office Assistant	Presents the **Office Assistant**, an automated character that provides tips and interactive prompts while you are working
Hide the Office Assistant	Temporarily closes the Office Assistant for the working session
What's This	Changes the mouse pointer to . Click an area, icon, or menu option using this special mouse pointer to get a short description of that item.
Office on the Web	If you are connected to the Web, provides additional Microsoft information and support articles stored at the Microsoft Web site
Sample Databases	Provides easy access to the sample databases installed with Access 2002
Detect and Repair	Analyzes a database for possible data corruption and attempts to repair problems
About Microsoft Access	Provides the version and product ID of Access

Compact on Close

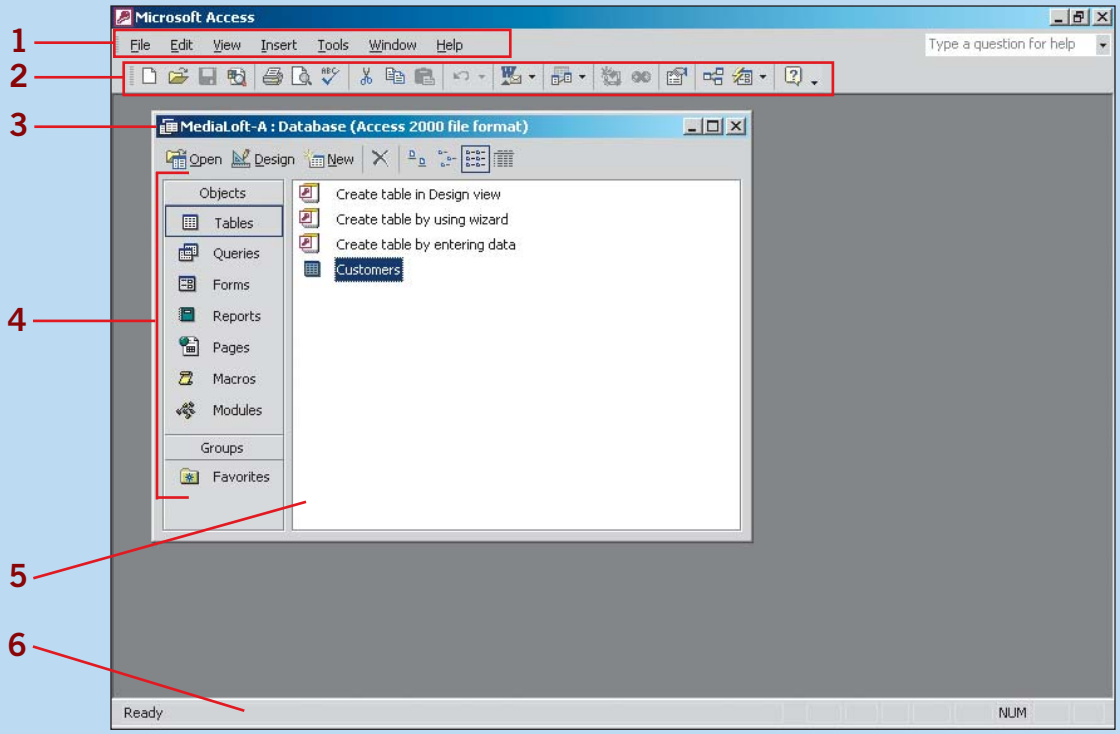
The **Compact on Close** option found on the General tab of the Options dialog box compacts and repairs your database each time you close it. To open the Options dialog box, click Tools on the menu bar, and then click Options. While the Compact on Close feature works extremely well if your database is stored on your hard drive or on another large storage device, it can cause problems if your Project File is stored on a floppy disk. The Compact on Close process creates a temporary file that is just as large as the original database file. This temporary file is used during the compaction process, and is deleted after the procedure successfully finishes. Therefore, if your database file grows larger than half of the available storage space on your floppy disk, the Compact on Close process will not be able to create the necessary temporary file or successfully compact the database. Such an error might result in a harmless error message or, in the worst case, a corrupt database.

Practice

Concepts Review

Label each element of the Access window shown in Figure A-18.

FIGURE A-18



Match each term with the statement that describes it.

7. **Objects**
8. **Table**
9. **Record**
10. **Field**
11. **Datasheet**

a. A group of related fields, such as all of the demographic information for one customer
b. A collection of records for a single subject, such as all the customer records
c. A category of information in a table, such as a customer's name, city, or state
d. A spreadsheet-like grid that displays fields as columns and records as rows
e. Seven types of these are contained in an Access database and are used to enter, enhance, and use the data within the database

Select the best answer from the list of choices.

12. **Which of the following is NOT a typical benefit of relational databases?**
    a. Easier data entry
    b. Faster information retrieval
    c. Minimized duplicate data entry
    d. Automatic trend analysis

13. **Which of the following is NOT an advantage of managing data with a relational database versus a spreadsheet?**
    a. Doesn't require planning before data is entered
    b. Allows links between lists of information
    c. Provides greater security
    d. Allows multiple users to enter data simultaneously

14. The object that holds all of the data within an Access database is the:

a. Query.
b. Table.
c. Form.
d. Report.

15. The object that provides an easy-to-use data entry screen is the:

a. Table.
b. Query.
c. Form.
d. Report.

16. What displays messages regarding the current database operation?

a. Status bar
b. Title bar
c. Database toolbar
d. Object tabs

Skills Review

1. Define database software.

a. Identify five disadvantages of using a noncomputerized system to organize database information.
b. Identify five advantages of managing database information in Access versus using a spreadsheet.

2. Learn database terminology.

a. Explain the relationship between a field, a record, a table, and a database.
b. Identify the seven objects of an Access database, and explain the main purpose of each.
c. Which object of an Access database is most important? Why?

3. Start Access and open a database.

a. Click the Start button, point to Programs, then click Microsoft Access.
b. Open the **Recycle-A** database from the drive and location where your Project Files are stored.
c. Identify the following items. (*Hint*: To create a printout of any screen, press [Print Screen] to capture an image of the screen to the Windows clipboard, start any word-processing program, then click the Paste button. Print the document that now contains a picture of the opening database window, and identify the elements on the printout.)

- Database toolbar
- Recycle-A database window
- Menu bar
- Object buttons
- Objects bar
- Status bar

4. View the database window.

a. Maximize both the Access window and the Recycle-A database window.
b. Click each of the Object buttons, then write down the object names of each type that exist in the Recycle-A database.

5. Navigate records.

a. Open the Clubs table.
b. Press [Tab] or [Enter] to move through the fields of the first record.
c. Press [Shift][Tab] to move backward through the fields of the first record.
d. Press [Ctrl][End] to move to the last field of the last record.
e. Press [Ctrl][Home] to move to the first field of the first record.
f. Click the Last Record navigation button to quickly move to the Oak Hill Patriots record.

6. **Enter records.**
   a. In the Clubs table, click the New Record button, then add the following two records:

Name	Street	City	State	Zip	Phone	FName	LName	Club Number
EBC Angels	10100 Metcalf	Overland Park	KS	66001	555-7711	Steve	Grigsby	8
Friends of the Zoo	111 Holmes	Kansas City	MO	65001	555-8811	Jim	Wheeler	9

   b. Move the Club Number field from the last column of the datasheet to the first column.

7. **Edit records.**
   a. In the Clubs table, change the Name field in the first record from Jaycees to **JC Club**.
   b. Change the Name field in the second record from Boy Scouts #1 to **Oxford Cub Scouts**.
   c. Change the LName field in the fifth record from Perry to **Griffiths**.
   d. Enter your name and unique information as a new record using **99** as the Club Number.
   e. Delete the record for Club Number 8.

8. **Preview and print a datasheet.**
   a. Preview the Clubs table datasheet.
   b. Use the Page Setup option on the File menu to change the page orientation from portrait to landscape.
   c. Print the Clubs table datasheet.

9. **Get Help and exit Access.**
   a. Close the Clubs table object, saving the changes.
   b. Close the Recycle-A database, but leave Access running.
   c. Search for the Help topics by entering the keyword **subdatasheet** into the Ask a question box. Click the link for the About subdatasheets option.
   d. Click the Show All link to display all of the glossary terms, then click the Print button on the Help window toolbar to print that page.
   e. Close the Microsoft Access Help window.
   f. Exit Access.

Independent Challenge 1

Ten examples of database tables are given below. For each example, write a brief answer for the following.

a. What field names would you expect to find in each table?
b. Provide an example of two possible records for each table.

- Telephone directory
- College course offerings
- Restaurant menu
- Cookbook
- Movie listing
- Encyclopedia
- Shopping catalog
- Corporate inventory
- Party guest list
- Members of the House of Representatives

Independent Challenge 2

You are working with several civic groups to coordinate a community-wide cleanup effort. You have started a database called Recycle-A that tracks the clubs, their trash deposits, and the trash centers that are participating.

a. Start Access.
b. Open the **Recycle-A** database from the location where your Project Files are stored, then write down the number of records and fields in each of the tables.
c. Open the datasheet for the Centers table. An expand button appears as a small plus sign to the left of the Name field for each record. Click the expand button to the left of each of the records in the Centers datasheet. A subdatasheet for each Center will appear. Count the records in each subdatasheet. How many records are in the subdatasheets, and what does this tell you about the relationship between the Centers and Deposits tables?
d. Close the Centers table, and then open the datasheet for the Clubs table. Click the expand button to the left of each of the Club records and count the records in each subdatasheet. How many records are in the subdatasheets, and what does this tell you about the relationship between the Clubs and Deposits tables?
e. Close the Clubs table, then exit Access.

Independent Challenge 3

You are working with several civic groups to coordinate a community-wide cleanup effort. You have started a database called Recycle-A that tracks the clubs, their trash deposits, and the trash centers that are participating.

a. Start Access and open the **Recycle-A** database from the location where your Project Files are stored.
b. Add the following records to the Clubs table:

Club Number	Name	Street	City	State	Zip	Phone	FName	LName
10	Take Pride	222 Lincoln Way	Olathe	KS	66001	555-2211	David	Reis
11	Cub Scouts #321	333 Ward Pkwy.	Kansas City	MO	65002	555-8800	Jacob	Langguth

c. Edit the following records in the Clubs table. The Street field has changed for Club Number 6 and the Phone and FName fields have changed for Club Number 7.

Club Number	Name	Street	City	State	Zip	Phone	FName	LName
6	Girl Scouts #1	55 Oak Terrace	Shawnee	KS	68777	555-4444	Jonathan	Bacon
7	Oak Hill Patriots	888 Switzer	Overland Park	KS	66444	555-9988	Cynthia	Ralston

d. If you haven't entered a record containing your own information, enter this record using **99** as the Club Number.
e. Print the datasheet.
f. Close the Clubs table, close the Recycle-A database, then exit Access.

Independent Challenge 4

The World Wide Web can be used to research information about almost any topic. In this exercise, you'll go to Microsoft's Web site for Access, and explore what's new about Access 2002.

a. Connect to the Internet, and use your browser to go to the www.microsoft.com/access Web page.

b. Web sites change often, but there will probably be a link that provides a tour of Access 2002, or an introduction to Access 2002. Click that link and follow the tour or introduction. Based on what you learned, describe two new things that you discovered about Access 2002.

c. Go back to the www.microsoft.com/access or www.microsoft.com/office Web page, then click the appropriate hyperlinks to find out how Office XP suites are organized. You might find this information within a pricing or ordering link. Find the Web page that describes what is included in the various Office XP suites and print it. On the printout, identify which suites include Access.

Visual Workshop

Open the **Recycle-A** database from the drive and folder where your Project Files are stored, then open the Centers table datasheet. Modify the records in the existing Centers table to reflect the changes shown in Figure A-19. The Street field for the first record has changed, the ContactLast field for the first three records have changed, and two new records have been added. Also, enter a new record using your name as the contact with **99** as the Center Number. Print the datasheet, close the Centers table, close the Recycle-A database, then exit Access.

FIGURE A-19

Centers : Table

Center Nu	Name	Street	City	State	Zip	Phone	ContactFirst	ContactLast	Hazardous
1	Trash 'R Us	989 Main St.	Lenexa	KS	61111	555-7777	Ben	Garrett	☑
2	You Deliver	12345 College	Overland Park	KS	63444	555-2222	Jerry	Welch	☑
3	County Landfill	12444 Pflumm	Lenexa	KS	64222	555-4422	Jerry	Anderson	☐
4	Cans and Stuff	543 Holmes	Kansas City	MO	60011	555-2347	Gretchen	Pratt	☐
5	We Love Trash	589 Oak St.	Kansas City	KS	60022	555-3456	Mitchell	Arno	☑

Record: 1 of 5